



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,104	11/20/2003	Shinji Takemoto	ND-US030856 (18.058-AG)	1103
29453	7590	12/15/2005	EXAMINER	
JUDGE PATENT FIRM RIVIERE SHUKUGAWA 3RD FL. 3-1 WAKAMATSU-CHO NISHINOMIYA-SHI, HYOGO, 662-0035 JAPAN			KERSHTEYN, IGOR	
			ART UNIT	PAPER NUMBER
			3745	
DATE MAILED: 12/15/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/707,104

Applicant(s)

TAKEMOTO, SHINJI

Examiner

Igor Kershteyn

Art Unit

3745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 10/24/2005 have been fully considered but they are not persuasive.

Claims 1-13 are pending. Claims 1, 3, 5-7, 9, and 11-13 are amended. Drawings are amended to address the first Office action drawings objections.

The above matters are appreciated.

In response to applicant's argument that Maruyama et al. (4,603,271) is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the specification of instant Application, in page 1, paragraph [0002], recites "The present invention relates to an electronic or electric device such as a personal computer, a computer game machine or a printer, which has a cooling fan housed in a relates such a cooling fan case. The present invention also and a case used for the electric device." And reference to Maruyama et al. pertains to the art of cooling fans for such devices, the support can be found in column 1, lines 5-9, reciting "This invention relates to a fan motor for cooling purpose, and more particularly to the fan motor to be mounted on small electronic appliances, such as personal computers and telecopiers."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maruyama et al. (4,603,271) in view of Branson (1,313,460).

Maruyama et al. teach a cooling fan motor comprising: a rotor 6 that includes a magnet 18; an impeller blade unit (not numbered) that is fixed to the rotor 6; a stator 5 that is fixed to so as to face the rotor magnet 18; a frame 1 that retains the stator 5 and forms an outer frame of the fan motor; and a guard plate 4,21 that covers an outer surface of the frame 1 and is fixed to or formed integrally with the frame 1, wherein the guard plate is provided ribs 4 extending in at least two directions, each of the ribs 4 has at least one inclined side (not numbered) of a cross section that is perpendicular to the direction in which the rib 4 extends, the inclined side is substantially parallel to the direction of an airflow spirally a that is generated at the position of the rib due to the rotation of the impeller blade unit of the fan motor or is inclined in the direction substantially along the airflow.

Maruyama et al. don't teach the guard plate provided with a mesh grid formed by ribs extending in at least two directions, intersections of the ribs are fixed to each other.

Branson in figures 1-5, teaches a guard plate covering the outer surface of the frame 1, wherein the guard plate is provided with a mesh grid formed by ribs (not

Art Unit: 3745

numbered) extending linearly in at least two directions, intersections of the ribs are fixed to each other, each of the ribs has at least one inclined side 2, 3, 5 of a cross section that is perpendicular to the direction in which the rib extends, the inclined side 2,3,5 is substantially parallel to the direction of an airflow or is inclined in the direction substantially along the airflow.

Since Maruyama et al. and Branson are analogous art because they are from the same field of endeavor, that is the exhaust guard art, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the exhaust guard of Maruyama et al. with the mesh grid as taught by Branson for the purpose of permitting a maximum quantity of air passing through, with a minimum of resistance and friction.

Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Maruyama et al. (4,603,271) as modified by Branson (1,313,460), further in view of McAnally et al. (5,788,566).

Maruyama et al. as modified by Branson teach all the claimed subject matter except that they don't teach the guard plate is formed by a plurality of rib groups that are arranged substantially like concentric circles having a center point according to a rotation axis of the fan motor and a plurality of ribs that are substantially perpendicular to the concentric circles and extend radially from the rotation axis.

McAnally et al., in figures 1 and 2, teach guard plate (not numbered) formed by a plurality of rib groups (not numbered) that are arranged substantially like concentric

Art Unit: 3745

circles having a center point according to a rotation axis of the fan motor (not numbered) and a plurality of ribs that are substantially perpendicular to the concentric circles and extend radially from the rotation axis.

Since Maruyama et al. as modified by Branson and McAnally et al. are analogous art because they are from the same field of endeavor, that is the fan guard art, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the fan guard of Maruyama et al. as modified by Branson with the guard plate formed by a plurality of rib groups that are arranged substantially like concentric circles having a center point according to a rotation axis of the fan motor and a plurality of ribs that are substantially perpendicular to the concentric circles and extend radially from the rotation axis. as taught by McAnally et al. for the purpose of further improving the structural rigidity of the guard plate.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maruyama et al. (4,603,271) as modified by Branson (1,313,460), in view of Price (3,481,534).

Maruyama et al. as modified by Branson teach all the claimed subject matter except that they don't teach the a shape of the cross section of the rib of the guard plate is a rectangle, and two long sides of the rectangle are both parallel to the direction of an airflow that is generated at the position of the rib due to the rotation of the fan motor or is inclined in the direction substantially along the airflow.

Price, in figures 1-5, teaches a fan guard plate 17 having a plurality of ribs 46 with a shape of the cross section of the rib 46 of the guard plate is a rectangle, and two long sides of the rectangle (not numbered) are both parallel to the direction of an airflow that is generated at the position of the rib 46 due to the rotation of the fan motor 12 or is inclined in the direction substantially along the airflow.

Since Maruyama et al. as modified by Branson and Price are analogous art because they are from the same field of endeavor, that is the fan guard art, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the ribs of Maruyama et al. as modified by Branson with the rectangular shape as taught by Price for the purpose of simplifying manufacturing of the guard plate.

Claims 7-11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over McAnally et al. (5,788,566) in view of Maruyama et al. (4,603,271), further in view of Branson (1,313,460).

McAnally et al., in figures 1 and 2, teach an electric device 10 that includes a case 12 and a cooling fan motor 20 disposed at a predetermined position in the case 12, the cooling fan motor comprising a rotor 24, an impeller blade unit (not numbered) that is fixed to the rotor 24, the case 12 comprising a guard plate (not numbered) that covers an outer frame 22 of the cooling fan motor 20 and is fixed to or formed integrally with the case 12, wherein the guard plate is provided with a mesh grid formed by ribs extending in at least two directions, wherein the guard plate is formed by a plurality of

Art Unit: 3745

rib groups that are arranged substantially like concentric circles having a center point according to a rotation axis of the fan motor and a plurality of ribs that are substantially perpendicular to the concentric circles and extend radially from the rotation axis.

McAnally et al. don't teach the cooling fan motor comprising a rotor that includes a magnet, a stator that is fixed to so as to face the rotor magnet and a frame that retains the stator and forms an outer frame of the fan motor.

Maruyama et al., in figures 1 and 2, teach a cooling fan motor having a rotor 6 that includes a magnet 18, a stator 5 that is fixed to so as to face the rotor magnet 18 and a frame 3 that retains the stator 5 and forms an outer frame of the fan motor.

Since McAnally et al. and Maruyama et al. are analogous art because they are from the same field of endeavor, that is the cooling fan motor art, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the cooling fan motor of McAnally et al. with the rotor that includes a magnet, a stator that is fixed to so as to face the rotor magnet and a frame that retains the stator and forms an outer frame of the fan motor as taught by Maruyama et al. for the purpose of forming an electric motor that powers the cooling fan motor.

McAnally et al. does not teach each of the ribs has at least one inclined side of a cross section that is perpendicular to the direction in which the rib extends, the inclined side is substantially parallel to the direction of an airflow spirally that is generated at the position of the rib due to the rotation of the impeller blade unit of the fan motor or is inclined in the direction substantially along the airflow.

Maruyama et al., in figures 1-3, teach each of the ribs 4 has at least one inclined side of a cross section that is perpendicular to the direction in which the rib 4 extends, the inclined side is substantially parallel to the direction of an airflow spirally that is generated at the position of the rib due to the rotation of the impeller blade unit of the fan motor or is inclined in the direction substantially along the airflow.

Since McAnally et al. and Maruyama et al. are analogous art because they are from the same field of endeavor, that is the cooling fan motor art, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the cooling fan motor of McAnally et al. with the ribs as taught by Maruyama et al. for the purpose improving the flow characteristics of the cooling fan.

McAnally don't explicitly teach each cell of the guard plate of the fan motor small enough so that at least a human finger cannot enter.

Maruyama et al., in column 1, lines 53-54, teaches a finger guard with each cell of the guard plate of the fan motor small enough so that at least a human finger cannot enter.

Since McAnally et al. and Maruyama et al. are analogous art because they are from the same field of endeavor, that is the guard plates for a cooling fan motor art, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to provide the cooling fan motor of McAnally et al. with each cell of the guard plate of the fan motor small enough so that at least a human finger cannot enter as taught by Maruyama et al. for the safety purposes.

McAnally et al. as modified by Maruyama et al. don't teach each of the ribs has at least one inclined side of a cross section that is perpendicular to the direction in which the rib extends, the inclined side is substantially parallel to the direction of an airflow, the guard plate is formed by a plurality of rib groups extending in two directions that are substantially perpendicular to each other.

Branson, in figures 1-4, teaches a guard plate (not numbered) having a plurality of ribs (not numbered), each of the ribs has at least one inclined side 2,3,5 of a cross section that is perpendicular to the direction in which the rib extends, the inclined side 2,3,5 is substantially parallel to the direction of an airflow, the guard plate is formed by a plurality of rib groups extending in two directions that are substantially perpendicular to each other.

Since McAnally et al. as modified by Maruyama et al. and Branson are analogous art because they are from the same field of endeavor, that is the exhaust guard art, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the exhaust guard of McAnally et al. as modified by Maruyama et al. with the mesh grid configuration as taught by Branson for the purpose of permitting a maximum quantity of air passing through, with a minimum of resistance and friction.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over McAnally et al. (5,788,566) as modified by Maruyama et al. (4,603,271) as modified by Branson (1,313,460), in view of Price (3,481,534).

McAnally et al. as modified by Maruyama et al. as modified by Branson teach all the claimed subject matter except that they don't teach the a shape of the cross section of the rib of the guard plate is a rectangle, and two long sides of the rectangle are both parallel to the direction of an airflow that is generated at the position of the rib due to the rotation of the fan motor or is inclined in the direction substantially along the airflow.

Price, in figures 1-5, teaches a fan guard plate 17 having a plurality of ribs 46 with a shape of the cross section of the rib 46 of the guard plate is a rectangle, and two long sides of the rectangle (not numbered) are both parallel to the direction of an airflow that is generated at the position of the rib 46 due to the rotation of the fan motor 12 or is inclined in the direction substantially along the airflow.

Since McAnally et al. as modified by Maruyama et al. as modified by Branson and Price are analogous art because they are from the same field of endeavor, that is the fan guard art, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the ribs of McAnally et al. as modified by Maruyama et al. as modified by Branson with the rectangular shape as taught by Price for the purpose of simplifying manufacturing of the guard plate.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 3745

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Kershteyn whose telephone number is **(571)272-4817**. The examiner can be reached on Monday-Friday from 8:00 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look, can be reached on **(571)272-4820**. The fax number is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308 0861.

IK
December 12, 2005

A handwritten signature in black ink, appearing to read 'Igor Kershteyn', is written over the printed name and title.

**Igor Kershteyn
Patent examiner.
Art Unit 3745**